

SUPPORT FOR THE AMENDMENTS

The present amendment amends claims 1, 2 and 6. Support for the amendment to claims 1, 2 and 6 is provided by the originally filed claims and specification. It is believed that these amendments have not resulted in the introduction of new matter.

## REMARKS

Claims 1, 2 and 4-21 are currently pending in the present application. Claims 1, 2 and 6 have been amended by the present amendment. Claims 6-8, 14-18 and 21 stand withdrawn from consideration by the Examiner as being directed to a non-elected invention.

The rejections under 35 U.S.C. § 103(a) of claims 1, 2, 4, 5, 9-13, 19 and 20 as being obvious over each of Traylor (U.S. Patent 5,286,887) and Nichols (U.S. Patent 3,481,945), are obviated by amendment.

Traylor describes polymers of macrocyclic metal chelators and methods for the preparation and use thereof (See e.g., abstract, column 1, lines 12-16, column 4, lines 5-25). Examples of compounds suitable for use as monomers of these polymers include the compounds represented by formula VI, wherein  $X^6$  are defined in the same manner as  $X^1$  (See e.g., column 9, lines 6-37).  $X^1$  is independently selected from the group consisting of leaving groups labile to aromatic nucleophilic substitution, electronegative substituents, non-interfering substituents and  $R^1$  (See e.g., column 7, lines 67-68, column 8, lines 1-2).  $R^1$  is an aryl which is polysubstituted by  $Z^1$  (See e.g., column 8, line 7). Suitable leaving groups are the anions of any strong acid (e.g., halogen, tosylate, brosylate and sulfonate) (See e.g., column 5, lines 13-16).

A skilled artisan would understand that the compounds of formula VI of Traylor are suitable monomers for polymers which are obtained from a polymerization reaction of said monomers. In order to form bonds between the monomers, each of the compounds must comprise at least one leaving group that is suitable for aromatic substitution. According to Traylor, suitable leaving groups are halogen, tosylate, brosylate and sulfonate. These radicals have to be present in the compound of formula VI in order to have a connecting point with which the monomers can be bonded.

The technical field of Traylor is to provide suitable monomers comprising moieties according to formula VI, in order to polymerize these compounds and to obtain polymers comprising these monomers. These polymers and metal complexes thereof are useful as catalysts for reactions in solution or vapor phase (See e.g., column 1, lines 12-16).

Traylor fails to provide a skilled artisan with sufficient motivation and guidance to arrive at the composition of the present invention comprising a cyclic compound of formula (I) and at least one tautomeric structure thereof, as presently claimed.

An exemplary aspect of the present application is to provide monomeric cyclic compounds of formula (I) which may be used as photoactive performance chemicals (e.g., light absorbers, light-emitters), as dispersants or as complex ligands (See e.g., page 1, lines 12-14). Therefore, the compounds of formula (I) according to claim 1 comprise substituents  $R^1$ ,  $R^2$  and  $R^3$  independently selected from the groups recited in claim 1. The  $R^1$ ,  $R^2$  and  $R^3$  substituents are not able to be aromatically substituted. Therefore, the compounds of formula (I) can not be polymerized in the manner taught by Traylor.

Furthermore, monomeric substances which are useful as monomers in polymerizing reactions by the aromatic substitution described in Traylor are not applicable as cyclic compounds in the above-mentioned technical fields of the present application, because the compounds disclosed in Taylor comprise labile leaving groups which can be subject to chemical reactions (e.g., polymerization reactions) as taught by Traylor. A skilled artisan considering the disclosure of Traylor would not consider that the very reactive monomeric compounds of Traylor would be useful as cyclic compounds for applications in accordance with an exemplary aspect of the present invention.

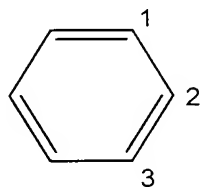
Applicants submit that a skilled artisan would not have been motivated to modify the compounds of Traylor in such a way as to obtain the claimed cyclic compounds of formula (I) of the present application.

Traylor describes that cyclic compounds of formula VI must contain at least one group  $X^6$ , which is a labile leaving group enabled to be aromatically substituted in an aromatic substitution reaction. Furthermore,  $X^6$  may be an electronegative group or a completely substituted aromatic group  $R^1$ .  $R^1$  is fully substituted by Z-groups, wherein Z is selected from the group consisting of leaving groups, amenable to aromatic nucleophilic substitution, electronegative substituents and non-interfering substituents.

Therefore, Traylor fails to provide a skilled artisan with sufficient motivation and guidance to arrive at the composition of the present invention comprising the claimed cyclic compound of formula (I). As a result, Traylor fails to render the composition of the present invention obvious to a skilled artisan.

Nichols discloses tetrabenzimidazole. In contrast, the composition of the present invention comprising the claimed cyclic compounds of formula (I) has on average from 0.05 to 100% of the R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> substituents not being hydrogen.

Nichols fails to disclose or suggest the specific substituents of the claimed cyclic compounds of formula (I). The tetrabenzimidazole of Nichols can be obtained by reaction of a monomer according to the following general formula:



wherein positions 1, 2 and 3 are substituted with various substituents (See e.g., column 1, lines 50-65). Applicants submit that Nichols fails to disclose or suggest which substituents shall be present on the phenyl rings of a compound according to the claimed cyclic compound of formula (I). Therefore, a skilled artisan would not have arrived at the composition of the present invention comprising the cyclic compounds of formula (I) having the specific substituents of R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> as presently claimed, based on the disclosure of Nichols, absent hindsight reconstruction. As a result, Nichols fails to render obvious to a skilled artisan the composition of the present invention comprising the claimed cyclic compounds of formula (I).

Withdrawal of these grounds of rejection is respectfully requested.

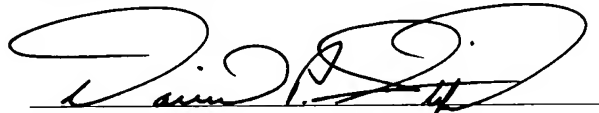
The rejection of claim 2 under 35 U.S.C. § 112, second paragraph, is obviated by amendment. Withdrawal of this ground of rejection is respectfully requested.

Upon a determination that the product claims drawn to the elected invention are found allowable, method claims drawn to the non-elected invention should be rejoined and examined for patentability, pursuant to MPEP § 821.04 and *In re Ochiai*, 37 USPQ2d 1127 (Fed. Cir. 1995).

In conclusion, Applicants submit that the present application is now in condition for allowance and notification to this effect is earnestly solicited.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "David P. Stitzel", written over a horizontal line.

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